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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,241	01/09/2007	Heinz Riess	306.46102X00	6951
20457	7590	07/07/2009	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP			TILLMAN, JR, REGINALD S	
1300 NORTH SEVENTEENTH STREET				
SUITE 1800			ART UNIT	PAPER NUMBER
ARLINGTON, VA 22209-3873			3641	
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			07/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/575,241	RIESS ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	REGINALD TILLMAN, JR	3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 04 May 2009.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-13 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,2,9-13 is/are rejected.  
 7) Claim(s) 3-8 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 10 April 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>5/1/07</u> .	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION**

***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

***Claim Rejections - 35 USC § 112***

2. Claims 9 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 9 recites the limitation "the nose" in line 2. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 12 recites the limitation "the plane face" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Billings (US 40,153).

**Re claim 1,** Billings teaches a shotgun-barrel projectile (Fig 1) comprising a projectile (A) and an intercalation (B), the projectile exhibiting a cylindrical free space on its underside (Fig 5), and the intercalation taking the form of a plunger (Fig 3) at its end facing towards the projectile, a radially outer surface of the plunger having a diameter adapted to a radially inner surface of the free space (Fig 5), characterized in that the projectile and the plunger are mounted so that before firing the plunger is not wedged in the free space (Fig 5) and the plunger is pushed into the free space and wedged in the free space in the course of firing so that the radially outer surface of the plunger abuts the radially inner surface of the free space (p. 0004; 0008). Billings does not specifically teach a projectile for fitting into a cartridge. However, this limitation is considered functional use and therefore not limiting since it has been previously held that while features of an apparatus may be recited either structurally or functionally, claims directed to an

apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997).

**Re claim 2**, Billings teaches the projectile according to claim 1, characterized in that, the free space exhibits a projectile spigot (a) arranged on the axis of symmetry, the plunger exhibits a bore (Figs 3&5) arranged on the axis of symmetry, at least a portion of a radially outer surface of the projectile spigot and at least a portion of a radially inner surface of the bore are substantially adapted to one another in diameter (Fig 5), and the projectile spigot and the bore are endowed with wedging elements (surfaces of (a) and (d)) which in the course of firing and insertion of the plunger into the free space bring about a wedging of the plunger and therefore of the intercalation with the projectile.

#### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Billings (US 4,015,153) in view of Blanco (US 4,301,733).

**Re claim 9**, Billings teaches a shotgun-barrel projectile according to claim 1, characterized in that the nose of the projectile merges, via a bevel (Fig 1) with adjoining shoulder (outer surfaces of A) running parallel to the axis of symmetry, but does not teach a plane face running perpendicular to the axis of symmetry and extending as far as the outer periphery of the

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projectile. Blanco teaches a projectile having a plane face (Fig 3, 9) running perpendicular to the axis of symmetry and extending as far as the outer periphery of the projectile. Having a plane face perpendicular to the axis of symmetry affects the penetrability of the projectile into a target. Therefore, it would have been obvious for one skilled in the art to modify Billings to include a plane face to affect the penetrability of the projectile into a target.

11. Claims 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billings (US 40,153).

**Re claims 10 and 13,** Billings applies as recited in claim 1, but does not teach that the intercalation consists of a plastic material and the projectile consists of a readily deformable material, or that the projectile comprises lead. However, it would have been obvious for one skilled in the art to modify these materials since it has been previously held that the selection of a known material based on its suitability for its intended use supports a *prima facie* obviousness determination. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

**Re claim 11,** Billings applies as recited in claim 1 and implicitly teaches a propelling charge wherein the projectile is mounted on the propelling charge. Billings does not teach a cartridge case. However, it is commonly known in the art that projectiles of this type are packaged in a cartridge case. A cartridge case allows for packaging the projectile and propellant into one compact unit. Therefore, it would have been obvious for one skilled in the art to modify Billings to have a cartridge case to allow for packaging the projectile and propellant into one compact unit.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Billings (US 40,153) in view of Maki (US 4,587,905).

**Re claim 12**, Billings applies as recited in claim 11, but does not teach that the upper end of the cartridge case is retracted inwards by 180 degrees and rests on the plane face. Maki teaches a case retracted inwards 180 degrees (Fig 4, 15). it would have been obvious for one skilled in the art to modify the case taught by Billings as combined in claim 11 to have a retracted case to prevent the projectile from coming out of the case (c. 3, l. 67-68).

*Allowable Subject Matter*

13. Claims 3 and 4 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

14. Claims 5-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: The most relevant prior art (Billings US 40,153) teaches a projectile and an intercalation that is wedged in the course of firing, but does not teach, and is not obvious either alone or combination that the wedging elements include a hollow cylindrical design of the end of the projectile spigot facing towards the intercalation, the underside of the projectile spigot exhibiting an inwardly inclined bevel, the bore in the plunger exhibiting a hemisphere arranged at the bottom, and a diameter reduction being arranged on the wall of the bore above the hemisphere.

***Response to Arguments***

16. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REGINALD TILLMAN, JR whose telephone number is (571) 270-7010. The examiner can normally be reached on Monday to Thursday 730 to 500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J. Carone/  
Supervisory Patent Examiner, Art Unit 3641

/REGINALD TILLMAN, JR/  
Examiner, Art Unit 3641  
07/01/09